

REMARKS

Please reconsider the application in view of the above amendments and the following remarks. Applicant thanks the Examiner for carefully considering this application.

Disposition of Claims

Claims 23-25, 28-33, and 36-51 are pending in this application. Claims 23, 31, 36, 44, and 47 are independent. The remaining claims depend, directly or indirectly, from claims 23, 31, 36, 44, and 47.

Drawings

The Applicant respectfully requests the Examiner to indicate whether the drawings filed on December 6, 2000, are acceptable.

Claim Amendments

Claims 23, 31, 36, 44, and 47 have been amended to clarify the operation of the claimed invention. The following is a summary of the operation of the claimed invention, as recited in the aforementioned claims: Initially, the HTTP request is received by the server that is to service the request (*i.e.*, generate a HTTP response to the HTTP request), hooks embedded within the server (or a server plug-in application) are subsequently triggered when the server proceeds to service the HTTP request. When the hooks are triggered, control is transferred from the server to a data collector, the data collector then proceeds to collect the necessary information about the HTTP request. Once the data collector has obtained information about the HTTP request, control is returned to the server, thereby allowing the server to proceed with servicing the HTTP request (*i.e.*, to generate a HTTP response). Prior to sending the HTTP response back to the

client that sent the HTTP response, a hook in the server (or server plug-in application) is triggered. The result of triggering the hook is to transfer control to the data collector. The data collector then proceeds to collect the necessary information about the HTTP response. Once the data collector has obtained information about the HTTP response, control is returned to the server, thereby allowing the server to proceed with forwarding the HTTP response to the client. Thus, there is no entity interposed between the client and the server that intercepts the HTTP requests and HTTP responses. Rather, the HTTP requests are communicated, without interception, to the server. Once the HTTP requests reach the server, the hooks in the server transfer control to the data collector. Prior to this, there is no collection of information. Support for the aforementioned amendments may be found, for example, in paragraphs [0054], [0075], and [0076] of the instant specification.

Dependent claims 24-25, 28-29, 30, 32-33, 37, 42-43, and 45-46 have been amended to address the antecedent basis issues arising from the amendments made to the aforementioned independent claims.

Rejection(s) under 35 U.S.C § 103

Claims 23-25, 28-33, and 36-51 stand rejected under 35 U.S.C. § 103 (a) as obvious over U.S. Patent 6,317,786 (“Yamane”) in view of U.S. Patent Application Publication No. 2002/0083217 (“Ward”). To the extent that the rejection applies to the amended claims, the rejection is respectfully traversed.

Claim 23, as amended, is directed to a system for monitoring data flow in a web application hosted on a server. More specifically, the data collector is configured to collect information about a HTTP request when a first hook in the server is triggered and to collect information about the corresponding HTTP response when a second hook is triggered in the

server. As recited in claim 23, the first hook and the second hook are embedded in either the server or a server plug-in application executing on the server.¹ Further, the first hook and the second hook are triggered while the server is processing the HTTP request. Said another way, the first hook is triggered at the time the server initiates servicing the HTTP request (*i.e.*, at the time the server has received the HTTP request but prior to processing the HTTP request to generate a HTTP response) and the second hook is triggered when the server is completing servicing the HTTP request (*i.e.*, at the time HTTP response has been generated but prior to the time the HTTP response has been sent to the client). (*See e.g.*, Instant Specification, paragraphs [0054], [0075], and [0076]).

Turning to the rejection, the Applicant respectfully asserts that Yamane does not teach or suggest all the limitations recited in the amended independent claim 23. Specifically, Yamane is directed to a system for intercepting a HTTP request by an interceptor (*See Yamane*, Figure 1 and col. 7, ll. 29-57), obtaining information about the HTTP request, determining to which web server to forward the HTTP request, and finally, forwarding the HTTP request to the selected web server. Upon receipt of the HTTP request, the selected web server takes the necessary action to generate a corresponding HTTP response. At this point, the HTTP response is sent to the client who initially sent the HTTP request.

With respect to the intercepting of HTTP requests, the interceptor disclosed in Yamane, is interposed between the client and the web server, and the system is configured such that all HTTP requests are received by the interceptor prior to being forwarded to a selected web server. Thus, the function of the interceptor is to collect information about the HTTP requests that it receives and to determine to which web server to forward the HTTP request. (*See Yamane*, col.

¹ Note that there is no requirement that the first hook and the second hook are both embedded in the same place (*i.e.*, the in server or in the server plug-in application).

7, ll. 29-57). However, the interceptor is not configured to process the HTTP request to generate a corresponding HTTP response.

While the Applicant notes that Yamane does teach collecting information about HTTP requests, the Applicant respectfully asserts that the manner in which information about the HTTP requests is collected is different than the manner recited in the claims of the present invention. Specifically, Yamane does not teach or suggest the following:

- (i) Collecting information about the HTTP requests or the corresponding HTTP responses by the server that is servicing the HTTP requests to generate the corresponding HTTP responses — Specifically, as discussed above, Yamane only teaches collecting information about the HTTP requests (and to a limited extent the corresponding HTTP responses) *prior* to forwarding the HTTP request to the selected web server (which is equivalent to the “server” recited in amended independent claim 23).
- (ii) Collecting information about the HTTP requests or the corresponding HTTP responses during the servicing of the HTTP request — Specifically, Yamane only teaches collecting information *prior* to forwarding the request to the selected web server. In contrast, as recited in amended independent claim 23, the first and second hooks are triggered *during* the servicing the HTTP request by the server.
- (iii) Using hooks to transfer control from the server to the data collector in order for the data collector to collect information about the HTTP request and the corresponding HTTP response, and, further, transferring control back to the server once the aforementioned information has been collected — Specifically, Yamane does not teach or suggest transferring control from the web server to the interceptor. In fact, the configuration of system in Yamane does not require the aforementioned

functionality as the information about the HTTP request is obtained prior to the web server receiving the HTTP request. As such, there would be no need to transfer control from the web server to the interceptor as the interceptor has already collected the aforementioned information by the time the HTTP request is received by the web server. In addition, as noted by the Examiner, Yamane fails to teach or suggest hooks. (See Office Action mailed March 28, 2005).

In view of the above, Yamane does not teach or suggest all the limitations recited in amended independent claim 23. Further, Ward does not teach that which Yamane lacks. This is evidenced by the fact that Ward is only relied upon to teach the use of hooks. (See Office Action mailed March 28, 2005, p. 6).

Moreover, even assuming *arguendo* that Ward and Yamane teach or suggest all the limitations recited in amended independent claim 23, the Applicant respectfully asserts that it would be improper to combine the teachings of Ward and Yamane. Specifically, “[i]f the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious. *In re Ratti*, 270 F.2d 810, 123 USPQ 349 (CCPA 1959).” See MPEP §2143.01.

In the instant case, the Examiner has asserted that it would have been obvious to modify Yamane to include “hooks.” (See Office Action mailed March 28, 2005). The Applicant respectfully asserts that such a modification would change the principle of operation of Yamane. As discussed above, Yamane discloses a system that uses an interceptor (i) to collect information about an HTTP request and (ii) determine to which web server to forward the HTTP request. Thus, in order to perform its function properly, the interceptor *must* obtain the HTTP request

before it is forwarded to the selected web server. If the HTTP request is not intercepted by the interceptor, then the interceptor cannot perform its function.

If, as the Examiner has asserted, Yamane is modified to include hooks, then the hooks would need to be included within the web server that is to process the HTTP request and generate the HTTP response. In such a scenario, the HTTP request would have to be received by the web server and the web server would have to initiate processing of the request to trigger the hook. At that time, the interceptor would then collect information about the HTTP request. This is clearly contrary to the principle of operation taught in Yamane which requires that the HTTP request is not processed until the interceptor determines to which web server the HTTP request should be sent. In view of the above, there is no motivation to combine Yamane and Ward.

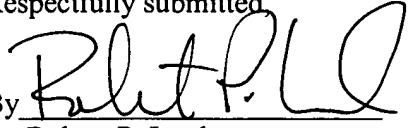
In view of the above, Yamane and Ward, whether considered in combination or separately, fail to show or suggest the present invention as recited in independent claim 23 of the present application. Thus, independent claim 23 is patentable over Yamane and Ward. Further, independent claims 31, 36, 44, and 47, as amended, include at least the same patentable subject matter as amended independent claim 23, and, thus, are patentable over Yamane for at least the same reasons discussed above with respect to amended independent claim 23. Dependent claims are allowable for at least the same reasons.

Conclusion

Applicant believes this reply is fully responsive to all outstanding issues and places this application in condition for allowance. If this belief is incorrect, or other issues arise, the Examiner is encouraged to contact the undersigned or his associates at the telephone number listed below. Please apply any charges not covered, or any credits, to Deposit Account 50-0591 (Reference Number 16150/002002; P5561).

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Respectfully submitted

By 
Robert P. Lord
Registration No.: 46,479
OSHA · LIANG LLP
1221 McKinney St., Suite 2800
Houston, Texas 77010
(713) 228-8600
(713) 228-8778 (Fax)
Attorney for Applicant